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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,573	03/31/2004	Georges R. Harik	0026-0074	4332

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EXAMINER	
BELL, CORY C	

ART UNIT	PAPER NUMBER
2164	

MAIL DATE	DELIVERY MODE
12/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/813,573	HARIK ET AL.	
	Examiner	Art Unit	
	Cory C. Bell	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12-15 and 17-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10, 12-15, and 17-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-10, 12-15, and 17-28 have been examined.

Response to Arguments

Any rejection not repeated has been withdrawn.

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6, and 9,10, 12-15, 17-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2005/0198070 (Lowry) in view of "Context Query in Information Retrieval," known hereafter as Chi and US 5444823, known hereafter as Nguyen.

3. As *per Claim 1*:

1. 1. A method comprising:

Identifying an implicitly defined semantic structure in a document, *Lowry* Para 187.
where a plurality of rules are associated with the implicitly defined semantic structure *Lowry*, Para 189 (teaching calculating a term proximity), Para 233 (teaching limiting proximity to the bounds of the implicit structure);

Determining a location of a first term and a location of a second term within the implicitly defined semantic structure; *Lowry,* Para 333

Outputting the distance value to rank the document for relevancy to a search query that includes the first term and the second term. *Lowry,* Para 189.

Lowery teaches a systems which located implicit and explicit semantic structures in a documents, and then uses term proximity to rank the pages, however it limits the proximity determination to within the identified structure. *Lowry*, Paras 187, 189, and 233. However, Lowry does not disclose using a expert system to determine the proximity. Yet, Lowery does teach that there are a number of factors that define different levels of proximity. *Lowry* Paras 9-14 (teaching same sentence, paragraph, and within a designated word limit.) Chi also teaches a number of rules that can aid in determining how closely related two terms are based on the provided semantic structure, and that should impact the rank. *Chi*, Section 4. Nguyen teaches building an expert system to implement a set of rules having deferent weights:

> The most common line of reasoning used by an expert system involves the chaining, either forward, backward or a flexible mix thereof, of IF-THEN rules. However, as knowledge of the domain for a particular problem is almost always incomplete and, has, therefore, a degree of uncertainty in the solution thereof, a rule may have associated therewith, a confidence factor ("CF") or weight.(col 1 lines 30-40)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to Create an expert system that applied a set of rules to each implicit structure, as proximity should be separated by structure (Lowery), to provide a distance measure based on the location of the terms in the structure to rank the documents, as it would provide a system that more accurately ranked documents based on known inferences that can be drawn about claim relationships without human intervention.

4. As *per Claim 2,* Chi teaches the limitations as follows:

2. The method of claim 1, wherein the document is a HTML (Hyper-Text Markup Language) document. {Chi Section 4 para 1}

5. As *per Claim 3,* Chi teaches the limitations as follows:

3. The method of claim 2, wherein the implicitly defined semantic structures include lists created with HTML tags {Chi Rule 6}.

6. As *per Claim 4,* Chi teaches the limitations as follows:

4. The method of claim 3, wherein the HTML tags include paragraph tags, new line tags, bold tags, or table tags {Chi Rule 6}.

7. As *per Claim 5,* Chi teaches the limitations as follows:

5. The method of claim 1, further comprising:

locating explicitly defined semantic structures. {Chi Rule 5}

8. As *per Claim 6,* Chi teaches the limitations as follows:

6. The method of claim 1, wherein the semantic structures include lists. {Chi Rule 5, Rule 6}

9. As *per Claim 9,* Chi teaches the limitations as follows:

9. The method of claim 1, wherein the implicitly defined semantic structures include titles or headings(Rule 2, Rule 4, Rule 6).

10. As *per Claim 10,* Chi teaches the limitations as follows:

See Claim 1 rejection.

11. As *per Claim 12,* Chi teaches the limitations as follows:

See Claim 10 rejection.

12. As *per Claim 13,* Chi teaches the limitations as follows:

See Claim 6 rejection.

13. As *per Claim 14,* Chi teaches the limitations as follows:

See Claim 6 rejection.

14. As *per Claim 15,* Chi teaches the limitations as follows:

The method of claim 13, wherein determining the semantically based distance values further includes:

assigning a distance value indicative of closeness when two terms are present in a same item of the list. {Rule 5, Rule6 }

15. As *per Claim 17,* Chi teaches the limitations as follows:

17. The method of claim 16, wherein the implicitly defined semantic structures are located prior to the ranking. {Section 5.1 3rd para} As the rules are used in determining the ranking it is inherent that the structures are located prior to ranking the documents.

16. As *per Claim 18,* Chi teaches the limitations as follows:

See Claim 2 rejection.

17. As *per Claim 19,* Chi teaches the limitations as follows:

See Claim 3 rejection.

18. As *per Claim 20,* Chi teaches the limitations as follows:

See Claim 4 rejection.

19. As *per Claim 21,* Chi teaches the limitations as follows:

See Claim 9 rejection.

20. As *per Claim 22,* Chi teaches the limitations as follows:

See Claim 12 rejection.

21. As *per Claim 23,* Chi teaches the limitations as follows:

See Claim 1 rejection.

22. As *per Claim 24,* Chi teaches the limitations as follows:

24. The device of claim 24, wherein the processor further:

receives a search query that contains the terms. {Section 1 para 3}

23. As *per Claim 25,* Chi teaches the limitations as follows:

25. A method comprising:

receiving a search query; {Section 1 para 3}

presenting the documents in an order influenced by the ranking. {Section 5.1 paras 2 and 3} The rest of the limitation are taught in the claim 1 rejection above.

24. As *per Claim 26,* Chi teaches the limitations as follows:

See Claim 2 rejection.

25. As *per Claim 27,* Chi teaches the limitations as follows:

See Claim 3 rejection.

26. As *per Claim 28,* Chi teaches the limitations as follows:

See Claim 5 rejection.

27. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over 2005/0198070 (Lowry) in view of "Context Query in Information Retrieval," known hereafter as Chi and US 5444823, known hereafter as Nguyen, in view of applicants admitted prior art.

28. Claim 7 teaches the determination of proximity of search terms, but fails to expressly disclose the method for calculating the proximity. However the applicant admits this method is known is para 5 of the specification "Closeness of terms in this context may be measured simply by counting the number of words in the document occurring between the search terms.". Thus it would have been obvious to one of ordinary skill in the art to use this method to calculate the proximity, as it was known function in the art for determining proximity.

29. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over 2005/0198070 (Lowry) in view of "Context Query in Information Retrieval," known hereafter as Chi and US 5444823, known hereafter as Nguyen, in view of "Automatic Discovery of Semantic Structures in HTML Documents," known hereafter as Mukherjee.

30. Chi Teaches the claims upon which claim 8 is dependant, but fails to expressly disclose "locating repeating occurrences of a set of two or more text formatting commands." However this feature is taught by Makherjee in the section labeled our approach. Thus, it would have been obvious to one of ordinary skill in the art to use the teachings of Makherjee in the invention as it would locate contexts that would not have been found in the system of Chi and thus make the results more accurate.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cory C. Bell whose telephone number is (571) 272 2736. The examiner can normally be reached on m-f 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272 4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SAM RIMELL
PRIMARY EXAMINER